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ABSTRACT

This 4-week case study followed a kindergarten teacher (the first author of the report) moving from a conventional teaching approach to one drawing from the philosophies of the preschools in Reggio Emilia, Italy. The teacher kept a journal in order to document her reflective practice, and to describe, reflect, and analyze shifts in her beliefs and practices in working with 5- and 6-year-olds. Three specific areas were addressed: practices toward children, toward parents, and toward her self-development. The teacher then analyzed the journal entries qualitatively by applying scholarly works on teacher change and reflective practice. Content analysis identified "idea units," which were coded. Quantitative analysis was also performed using chi square analysis. Results showed significantly greater shifts in practices regarding teacher role than in practices regarding parental involvement, children's participation, and belief regarding the image of the child. The following recommendations are made for practitioners shifting to a Reggio Emilia-style approach: (1) all teacher change is continuous and ongoing; and (2) the teacher must have a positive attitude and be ready to take risks, make mistakes, and sometimes fail. (Four appendices include the journal and idea units for coding the journal. Contains 49 references.) (TM)

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TEACHER CHANGE USING REFLECTIVE PRACTICE WHEN ATTEMPTING TO MOVE TOWARD A REGGIO EMILIA APPROACH

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Abstract

This is a four week case study of a teacher changing from a non-Reggio Emilia approach and moving toward a Reggio Emilia approach. The procedure was using journal entries to describe, reflect, and analyze the investigator's shifts in her beliefs and practices. The results were analyzed qualitatively by applying scholarly works on teacher change and reflective practice to the journal entries. Additionally, quantitative analysis was also performed using chi square. The results showed significantly greater shifts in her practices regarding "teacher's role" than her practices regarding "parental involvement", "children's participation" and her belief on the "image of the child". Recommendations for practitioners are also examined.

REVIEW OF LITERATURE

The Reggio Emilia approach has gained great measure of prominence in the last five years amongst professionals in the United States of America. Recently, this approach has been presented annually at NAEYC conferences and the number of presentations have steadily increased enough to finally have a special Reggio Emilia category as one of the listed tracks. Additionally, articles have appeared in many early childhood journals, such as *Young Children,* (e.g., Katz, 1990; LeeKaeenan & Edwards, 1992; New, 1990;) *Dimensions of Early Childhood,* (e.g., Edwards, 1993) *Child Care Information Exchange,* (e.g., Gandini, 1991, 1994; Malaguzzi, 1994; Neugebauer, 1994) as well as *Newsweek,* (e.g., Hinckle, *1991)* magazine. The content of the conferences, publications, networking support groups, and of Reggio newsletter titled, Innovations, has been on topics such as: (a) organization of the classroom environment (Gandini, 1991, 1993); (b) the Reggio image of child, Benham, 1992; Forman, 1990; Malaguzzi, 1994; Weissman, 1993); (c) educators impressions of Reggio Emilia (Gandini, 1994; Katz, 1990; Neugebauer, 1994; New, 1990, 1993; Palestis,

1994) and (d) project approach (Edwards, 1993; Gandini & Edwards, 1988; Katz, 1994; LeeKaeenan & Edwards, 1992; Trepanier-Street, 1993).

Despite all this voluminous new information being published and disseminated about the Reggio Emilia approach, there has been little to none research published on documenting the shifts of a teacher's reflections when exposed to a Reggio philosophy. There is a need to document the process a teacher experiences when making a change from a non-Reggio to a Reggio Emilia approach so that others may gain further insights from her reflections. Hopefully, examination of the reflections on the process of change in turn would support and facilitate other early childhood educators who also are attempting to transform their beliefs and practices and be influenced by the Reggio Emilia Approach.

"Teacher change" is a difficult, confusing, and a lengthy process filled with insecurities that requires several phases of change. (DeVries, 1988) According to DeVries a teacher proceeds through four phases namely, skepticism, environmental change, paralysis, and autonomy when transforming into a constructivist

teacher. Katz(1985) also views teacher change in four stages. However, her stages are referring to transformation from a novice to an experienced teacher where a beginner teacher shifts from survival, to consolidation, to renewal, and finally maturity. Additionally, Shaw, Davis, McCarty, & Sidani-Tabbaa, 1990; Tobin and Jakubowski (1992) propose the following six requisites for change to occur: (a) perturbation or dissatisfaction with the way things are (b) awareness of a need to change (c) commitment to change (d) vision - the teacher envisions what the change will involve (e) projection into that vision- here the teacher envisions herself and her class participating in the change and (f) the thinking that will make the vision a reality.

If teacher change is the goal, then examining the obstacles to this change is crucial. Routman (1988) observed that when teachers change their teaching of reading from the traditional approach to a whole language approach the change causes pressure, conflict and frustration, and therefore some play it safe and do not become risk takers. Swanson (1994) found that replacing adult directed art projects with child

directed experiences resulted in fear and feelings of ineffectiveness on the part of teachers. Wasley (1991) observed fear to be an obstacle to teacher change when she studied three teachers who were implementing the "Coalition of Essential Schools" model. Additionally, Fyfe (1994) found change causes feelings of loss and uncertainty in teachers. Osterman (1993) observed that teachers even after attending workshops and conferences, do not institute the changes they learn about because of day to day pressures. Thus, these scholars have identified multiple fears, job pressures, frustration, and inadequacy, as obstacles to change.

Reflective Practice

Having identified the problem that there are obstacles to teacher change the resulting question is, what will facilitate teacher change? The first author advocates the use of reflective practice to facilitate teacher change. Reflective practice is a strategy that allows the teacher to step outside of what Schon (1983) calls a "frame", and then look back on her beliefs and practices that she uses in her classroom.

For reflective change, Smyth(1989) suggests a four step process. He linked each stage to a question the

teacher could ask herself when reflecting. The stages are: 1) describe - What do I do? 2) inform - What does this mean? 3) confront - How did I come to be like this? 4) reconstruct - How might I do things differently?

Additionally, Schon (1983) asserts that to be successful at change a teacher needs to realize that there is more than one frame in her classroom and that she must reflect critically on herself in these frames. Etchberger & Shaw (1992) and Adler (1993) agree that reflective practice also called critical inquiry throughout the change process is essential. Thus, theoretical and empirical views on reflective practice will be examined next.

Theoretical Views

Schon (1983) distinguishes between two types of reflective practice, reflection-on-action and reflection-in-action. In reflection-on-action, the teacher intentionally looks back on what has occurred, and is thoughtful about her work. In reflection-in-action the teacher realizes her teaching method is not working and changes her method on the spot.

Additionally, Adler(1993) states there are four

responsibilities of the reflective practitioner: she must share her work with the educational community, make the contexts of her work clear, search for patterns, and make sense of the spiraling nature of research and use it as a guide to future action. Thus, reflective practice can be used to teach others, and help them change.

McLean (1993) used teacher's stories as a strategy to teach what she calls "reflective learning exercises". She paired preservice teachers with experienced teachers. The students then reflected on the experienced teacher's practice, and finally they collaborated to write an narrative of the experience. Thus, both learned from the reflections.

Research

Research supports using reflective practice to facilitate teacher change. In a study by Canning (1991), students and teachers met weekly for a year to learn how to reflect. Canning (1991) observed "teachers found that reflection was an intrapersonal experience leading to insight about themselves as actors in their world"(p.20). She stated reflection produced changes in perceptions, behaviors, and self-

concept.

Similarly, Etchberger & Shaw(1992) conducted a case study observing a fifth grade teacher who wished to change from a traditional teacher to a constructivist teacher. Etchberger & Shaw(1992) used requisites for change (Tobin & Jakubowski, 1992; Shaw, Davis McCarty, & Sidani-Tabbaa, 1990) to analyze observations of the teacher, interviews with the teacher, and the reflective entries of the teacher's journal. Thus demonstrating how the teacher moved through her change. Etchberger & Shaw concluded that teacher change is a continuing process that can be facilitated by reflective practice.

Short & Rinehart (1993) conducted a study using both quantitative and qualitative analysis on journal entries of graduate students reporting on critical incidents which occurred during the school year. The students kept journals in which they reported the critical incidents and then reflected on the incidents using a procedure similar to that suggested by Adler (1993) and Smyth (1989). The journals were analyzed using a framework developed by Sparks-Langer, Simmons, Pasch, Colton, & Starko (1990). For qualitative

analysis, each incident in the journal was coded for the type of problem using the Bogdan & Diklin design (1982). Short & Rinehart observed that reflection enabled the graduate students to develop more knowledge and understanding of school problems which resulted in the ability to change their behavior in dealing with problems.

Similarly, in a collaborative research project Hunsaker & Johnston (1992) conducted a four year longitudinal case study of teacher change using reflective practice. The goal of the investigation was to study the influence of the master's program on the teacher's beliefs and practices. Both writings and audiotaped conversations between teacher and the second author were utilized in this study. The data was scanned to identify "emergent categories" and relationships between the categories. The data was coded to the categories. Hunsaker & Johnson concluded reflective practice is a strategy that facilitates teacher change. While there are no simple recipes for change, (Barnes, 1992) these studies support using reflective practice to facilitate teacher change.

Role of the Journal

Adler (1993); Etchberger & Shaw (1992); Evans (1991); Killion & Todnem (1991); Ross (1989); Short & Rinehart (1993) and McLean (1993) all agree that a journal, diary, or some form of written notation will move the teacher to write her reflections. However, being a reflective practitioner is one step in making the paradigm change. After the teacher writes her reflections, she must then examine her reflections and look for shifts in her beliefs and practices. This will help her to learn if she is changing, and if not it can be used as a guide for further change. Sharing the journal with co-workers or a mentor is also beneficial to teacher change. This gives the teacher additional feedback, and can lead to additional reflections, which will result in more or greater change. According to Etchberger & Shaw (1992) "reflection when acted upon, generated powerful transformations"(p. 416).

Hence, the first author therefore will reflect in a journal her effort to shift from a non-Reggio approach to a Reggio approach. She will reflect on her shifts in her beliefs and practices when exposed to a

Reggio approach. The first author will specifically examine shifts in her belief regarding "image of the child"; and shifts in her practices regarding "teacher's role", "parent involvement", and "children's participation". Thus resulting in the following research question.

Research Question

During a four week period of a teacher documenting in a journal her beliefs and practices of working with five and six year-olds: How does she reflect on the process of shifting from a non-Reggio approach to a Reggio Emilia approach?

Hypothesis

In a four week period of a teacher documenting in a journal her beliefs and practices of working with five and six year-olds the teacher will reflect by: describing areas of belief and practice where she has shifted, then she will infer regarding these shifts based on theoretical, and empirical scholarly readings, and report the results as patterns of change.

METHODS

Subject

The first author is the subject of this investigation which focuses on professional development of self. The subject's formal training includes a bachelor's degree in elementary education, a certificate in early childhood education, and all course work completed toward a master's degree. As a teacher she has taught eight years in an extended day kindergarten in a public school, one year with three and four year-olds in a pre-school and in a summer camp. Additionally, the subject has had informal early childhood experience of raising her own three children, teaching in a religious school, and being a brownie and girl scout leader.

Procedure

Before Intervention

Prior to this study, the teacher, who is the first author and the subject of this investigation did not work with young children based on the Reggio Emilia philosophy. However, previously the first author did

use a thematic approach in curriculum planning, but did not develop these themes based on theoretical perspectives. Second, the planning and implementation of the themes was highly directed and controlled by the teacher. Third, the topic was limited to one week in duration. Fourth, the teacher only recorded anecdotal notes for the purpose of parent conferences. The observations were almost never used as a formal strategy to identify what the children wanted to investigate. Finally, the teacher only took photographs at Halloween or holiday parties.

On a typical day, during free choice time, the first author planned one art activity related to the theme selected by her. Despite her academic training, which encouraged child initiated activities, she approached art activities in a teacher directed manner. She planned, decided the materials, and provided pre-fabricated patterns so that the children could each make the same individual project. For example, when the children made jack-o-lanterns, the teacher provided the patterns, orange and black paper, glue, scissors and pencils. The teacher also demonstrated how to make the jack-o-lantern during group time and this resulted

in the children each cutting and pasting to create the same product. When the children needed additional materials, they needed to ask the teacher. If a child had no interest in an art project the teacher pleasantly cajoled the child to get him interested and as a result the child would then try the activity.

However, the teacher did provided choices for children to select any one or more of the centers for any length of time. (e.g. sand and water table, block center, housekeeping, table top toys, and book area) Lastly, the children also had a choice of selecting an open ended activity such as painting or drawing with multiple mediums. This is how the teacher previously organized her classroom.

Description of Intervention

The same classroom became very different when the teacher implemented the "Reggio approach." First, the teacher followed the theoretical principles of Reggio (Malaguzzi, 1993). Reggio, is predominately a constructivist approach. It is influenced by the work of the following theorists Piaget, Dewey, Vygotsky, Ferriere, Bruner, Bronfenbrenner, Hawkins, Gardner, Kaye, Shaffer, Moscovici, and Mugny (Malaguzzi, 1993);

which makes it an eclectic approach. "In essence, the Reggio approach says children have the right to high-quality care- the best society can offer-and that child-directed or child-centered learning is crucial." (Palestis, 1994, p.34)

Second, the teacher made changes in the classroom environment. She moved the glue, scissors, pencils, crayons, and markers where the children had access to them. Paper was displayed on open shelves where children could see the colors and sizes. The first author made scrap materials such as paper rollers, egg cartons, cereal boxes, and ribbon, available in open storage boxes. She also informed the children of materials that were available in the teacher's lounge, such as large rolls of bulletin board paper.

Third, with the implementation of a child-centered approach, planning became a collaborative effort between the children and the teacher. The teacher listened and observed the children to find out about their interests, and then she recorded child-child, child-adult, and child-object interactions. For example, when two children discussed dinosaurs, the teacher made notes regarding the discussion. Also,

when children brought ocean related materials to school following a vacation, the teacher noted what the child brought, the responses of the other children, and the teacher's comments regarding the object. Observing children, taking notes of their discussions, and taking photographs of lessons in progress, are all a part of what Reggio terms "documentation."(Cohen, 1992) As a result of this documentation the teacher created a list of topics to investigate. (see appendix C, journal entry #1.) Then, the children voted on the topic of their choice. At this time, the teacher formulated "provocatory" questions (Rankin, 1993) for the children, to discover their knowledge level regarding the topic. For example, the children voted and chose sea animals. The teacher then instructed the children to think about what they wanted to learn about sea animals. She asked, "Do all fish have fins? Do different fish eat different food?" The teacher asking questions and children discussing and raising new questions, resulted in the children drawing pictures of fish. This is how the sea animal "project" began. These open-ended explorations generated by the children's questions or experiences Reggio terms

"projects"(Cohen, 1992). This child centered planning replaced the previous approach of teacher directed planning.

Fourth, the child initiated art that resulted from the child centered planning replaced the teacher directed art. For example, when the children showed an interest in sea turtles, they created one. When the children learned about whales and starfish, they also created them. This collaborative art succeeded the previous individual art. Throughout the "project" both the teacher and the children brought resources such as, starfish, snail shells, sea shells and models of sharks to the classroom. The teacher used all of these resources to provoke more learning and art work on the part of the children.

Finally, the teacher made additions to the centers that the children could select daily. Oil pastels, papier mache', and clay were added to the open-ended art center. The teacher also utilized the materials the children brought to class to form centers. When a child brought a starfish to class it was either added to the art center for drawing, or the teacher put in on a separate table with magnifying glasses so children

could examine it. The children helped the teacher to make these decisions of where to put it.

Thus there were five major shifts in the transformations of this classroom procedures: a) From no theoretical underpinnings to knowledge of theories on which the Reggio approach is based, b) From a closed environment to a more open environment, c) From individual planning to collaborative planning, d) From teacher as the dispenser of art to student as constructors of art, and e) From limited availability of materials at centers to enriched centers. During this transformation to a "Reggio approach" the first author kept a journal documenting the changes in her as a teacher.

Data Collection and Analysis

Data recording

The goal of the daily journal entry was to examine teacher's beliefs about the children and teacher's practices. The three specific areas of teacher's practices were: her practices toward children, toward parents, and toward her self development. In order to reach that goal, the teacher first observed adult-child interactions, adult-child-object interactions, and

adult-child-peer interactions. The children were observed and anecdotal records were kept during planning and implementation of the "Reggio Approach." For example, when a child brought a sea turtle model to class, the teacher's journal reflected the following: which child brought the sea turtle to class and his comments about the sea turtle, the children's verbal and non-verbal responses, and the teacher's questions and remarks regarding the sea turtle. (see Appendix C, entry #4) A typical planning time ranged from 20 to 40 minutes, and the implementation time ranged from 45 minutes to an hour and 15 minutes.

The second step was to daily type the handwritten journal entries. This was done to compel the first author into the habit of a) interpreting the information and reflecting on it and b) applying theory to the reflections. (Adler, 1993) The entries were typed in a two-column format with the observations on the left side and the reflections on the right-hand column. The reflections, were molecular level inferences on specific observations on teacher's beliefs and practices. The first author's reflections focused on shifts in her practices and articulating her

beliefs which influenced her practices. She also recorded findings from scholarly works on the "Reggio approach," teacher change, reflective practice contributing to teacher change, and stages of teacher change; to support her inferences. Thus these inferences were primarily the first author's cognitive reactions to the "Reggio approach."

During the third step, the first author re-read and further reflected on the whole entry and wrote "immediate summative" reflections at the end of each entry. These "immediate summative" reflections were molar level of analysis since they were focusing on the overall reflections about the day's entry. In addition the first author's affective responses to the "Reggio approach" were noted in this section. Once again, wherever appropriate, the first author made reference to scholarly work mentioned earlier to support her inference.

As the study progressed, the first author continued gaining knowledge by reading scholarly literature, attending Reggio workshops, and weekly conferring and reviewing journal entries with a the second author. Additionally, in keeping with Adler's (1993) design of

critical inquiry, journal entries were shared with co-workers when collaborating and networking with Reggio teachers. This resulted in additional reflections to her journal entries, which she entered and titled, "later summative reflections". Thus the "immediate summative" and the "later summative" reflections were retrospective in nature. They were modeled after Adler's design of critical inquiry.

Data Analysis

The "immediate summative" and "later summative" reflections in the journal entries were qualitatively analyzed to identify major shifts in the first author's beliefs and practices. These shifts were examined by using DeVries' (1988) phases and Katz's (1985) stages. Additionally, the first author did content analysis on the reflections which were recorded in the right-hand column of the journal where she had reflected on shifts in her beliefs and practices. For content analysis, the first author identified dominant themes called "idea units" in the reflections. An idea unit is a single reflection noted regarding the observations that have been recorded in the journal. To be judged an idea unit, the reflection must focus on becoming a

Reggio teacher in anyone of the following four domains: teacher beliefs regarding the image of the child, teacher practice directed toward children's participation, teacher's practice directed toward parent involvement, or teacher's practice directed at overall participation (teacher's role). (see Appendix A for detailed definition and description of each idea unit.) The journal entries were coded using the idea units by two independent coders. A chi square was used to assess the interrater reliability. The measure of agreement was 96% between the independent coder and the first author, and the chi square was 177.57. The significance level was .00000.

Additionally, in order to compare and contrast the shifts within the four domains mentioned earlier a chi square analysis was executed.

RESULTS

Hypothesis

In a four week period of a teacher documenting in a journal her beliefs and practices of working with five and six year-olds the teacher will reflect by: describing areas of belief and practice where she has shifted, then she will infer regarding these shifts based on theoretical, and empirical scholarly readings, and report the results as patterns of change.

The first author will reflect on the process of change she underwent using Katz's (1977) stages and DeVries' (1988) phases of teacher change.

This first author found herself at Katz's stage III, titled "renewal" before this investigation began. Teachers at this stage are bogged down with routines and ready for change. They participate in workshops, attend conferences, and they welcome new experiences. Teachers at this stage also exhibit many of what are called the requisites necessary for change. (Tobin & Jakubowski, 1992; Shaw, Davis, McCarty, & Sidani-Tabbaa, 1990) While the first author welcomed change, she did not possess all the requisites

necessary for change, and this influenced the early stages of her shift. She had the perturbation, and recognized a need for improvement, but lacked commitment, vision, projection into that vision and the physical and mental processes engaged to make the vision a reality. Reflective practice allowed the first author to voice this uneasiness as she moved through each stage or phase of her change.

Using the recommendations of Adler (1993), Evans (1991), Etchberger & Shaw (1992), Killion & Todnem (1991), Ross (1989), Short & Rinehart (1993) and McLean (1993) the first author used a journal for her reflections. The journal allowed the first author to become aware of habits and behavior patterns (Osterman, 1993) she needed to change. For example, in entry #3 the reflections state, "there was little communication between the members of the group. I wanted to intervene! I wanted to make suggestions." This was a practice that the first author needed to become aware of and change. Additionally, the journal reflections enabled her to question, decide, analyze, and consider alternatives (Adler, 1993) as she moved through DeVries' (1988) phases of change.

The first author will now demonstrate how she move through each of DeVries' (1988) phases of change. The first phase is "skepticism", the "it won't work" phase. Early reflections in the journal demonstrate this skepticism. Entry 1, "I have my doubts where this study of sea animals will lead." Entry 3, "I have my doubts about whether the group will work..." Entry 4, "I am not sure..." "We still don't know where were going with all of this." In these three examples the first author is doubting her beliefs about the children and her practice directed toward children. Will they be able to work together to create a project? The reflections demonstrate the first author describing, informing, and confronting this new approach to teaching. (Smyth, 1989)

DeVries (1988) states that the teacher is skeptical of herself and the children at this stage. This skepticism also suggests that the first author has not made a firm commitment to change which is one of the requisites of change. (Tobin & Jakubowski, 1992; Shaw, Davis, McCarty, & Sidani-Tabbaa, 1990) This skepticism is also evident in the "Later Summative Reflections" of entry 3. "Maybe I should have asked

the children to choose their own group...or maybe I am acting as Schon (1983) suggests and not "reframing" my ideas of the classroom." In this example the first author is trying to work through her skepticism by using reflective practice.

Malaguzzi (1994) speaking about Reggio stated that life has to be somewhat restless, unknown, and agitated. Experiencing skepticism during the early phase of the shift the first author felt restless and agitated.

DeVries (1988)in her second phase titled, "environmental change", states there are two types of obstacles. The first type, the external obstacles, included the administration or fellow teachers which influence the teacher making the change. Wasley's (1991) qualitative study of three teachers undergoing change supported DeVries findings. The teachers stated they would not have been able to make the change if their administrators had not supported them. Additionally, when there were changes in the administrative staff and they were not supportive, this became an obstacle to teachers who were trying to transform their practices.

In this investigation, the administration instituted the change in philosophy and supported the first author's work. The head teacher made weekly visits and served as both a collaborator and a support system for the first author. As reported in entry #19, "Our head teacher's job was to act as a consultant similar to the "pedagogista" in Reggio Emilia." The administration also encouraged the first author to collaborate with her assistant, join a Reggio network, and attend Reggio workshops in documentation and children's art while making the change. The first author supports DeVries findings when she suggests joining a network and collaborating with co-workers to move through this phase of change. Since the first author had support from her administration it did not impede her change.

The other part of DeVries (1988) second phase included internal obstacles, such as anxiety over how to operate the classroom. In this investigation, the first author utilized the same support system of joining Reggio networks and attending conferences mentioned above to proceed through this part of the change.

DeVries'(1988) third phase is " paralysis", it pertains to the questions the teacher has about her role. DeVries states before making the change the teacher knew how and when to do things, but now she questions each move she makes, resulting in no action or "paralysis." Swanson (1994), Fyfe (1994), Routman (1988), and Wasley (1991) all supported DeVries findings regarding teacher's role and change.

The first author found herself undergoing "paralysis" herself, questioning when to intervene with the children. Malaguzzi (1994) states that the Reggio teacher needs to sit back and allow the child to learn for himself rather than intervene. The first author found not intervening a difficult practice to change as reported in entries 3, 8, and 10. Entry 3, "I wanted to intervene! I wanted to make suggestions." Entry 8, "I just sat and observed without intervention. While it is often difficult for me, I know I am learning by doing it." Entry 10, "Before exposure to Reggio I would have said, 'M. try opening it up...' rather than letting them figure it out for themselves." Edwards (1993) also agreed that knowing when to intervene is a difficult aspect of the teacher's role in Reggio.

Fyfe (1994) when referring to teachers implementing Reggio states, "All teachers, at one time or another, question whether given interventions help or harm a child" (p. 25). She further suggests that close observation, listening, and engaging children in dialogue will help the teacher decide when to intervene. The first author agrees with Fyfe regarding the decision to intervene. This was the most difficult part of the practice for the first author to accomplish. However, reflective practice allowed the first author to examine her journal entries pertaining to intervention. Reading the entries enabled the first author to visualize herself in the classroom "frame", then she was able to further reflect on what she should do, thus resulting in a reflective practitioner. (Adler, 1993) As reported in the following "Later Summative Reflections" entry #9, "I could have stopped the girls (intervention) and supplied them with all the resources we had on sharks. This might have been helpful because unlike the boys they needed intervention to help them work as a group. They needed to be taught how to work as a group." Entry #10, "I could have questioned the boys (intervened)...but I

think it would have interrupted the flow of their progress." Thus, reflective practice helped the first author make this shift in practice.

The last phase of change in DeVries' (1988) model is what she calls "autonomy," knowing what to do and why. The first author is approaching this phase. She is what Katz(1977) terms "in progress". While Katz applied the term to novice teachers the first author asserts it also applies here. The first author is in the process of becoming a Reggio teacher. For example, in entry 8 the first author states, "I think at this point I was still changing, moving toward becoming a Reggio teacher. That is why it was difficult not to intervene." In entry 10, the first author asserts, "M., Bra., and Jac. are proof of my change and my image of the child. They are strong independent workers." Speaking about a successful experience the first author states, "Having success with the magnets, I am sorry that I have not set up more problems for the children to explore. I know this is a large part of Reggio, and one that I will have to concentrate on in the future."

Thus, using Katz' stages and DeVries' phases of teacher change the first author has qualitatively

analyzed how her entries also documents changes within herself. Having discussed the findings qualitatively, further analysis was executed using chi square to compare the shifts in belief and practices.

Table 1

Frequency of Shifts in Belief and Practices Recorded in Journal Entries

Idea Units	No. of Cases	Residuals
Belief		
Image of the child	26	-7.33
Practices		
Child. Partic.	23	-10.33
Parent Partic.	0	0
Teacher's Role	51	17.67

chi square goodness of fit = 14.18, p = .001

Chi square goodness of fit was used to test the null hypothesis that the "idea units" were equally distributed across type. The null hypothesis was rejected with a chi square of 14.18, p=.001. The results showed significantly greater shifts in her practices regarding "teacher's role" than her practices

regarding "parental involvement", "children's participation", and her belief regarding "image of the child".

Change in Teacher's Role

There were 51 entries indicating that she had changed in her role as a teacher. The greatest change was in teacher's role as a result of several factors. First, intervening, documenting, and becoming a risk taker were behaviors that were facilitated by reflective practice. The first author became aware of her habits through reflective practice using the journal. She was then able to analyze her behavior and consider alternatives.(Adler, 1993)

Second, sharing the journal with the second author not only allowed the first author to revisit her "frames", and discuss the entries, it gave her feedback which promoted more and different kinds of reflections Etchberger & Shaw (1992). Third, the first author had the educational support of learning about Reggio through workshops, readings, conferring with the head teacher, discussions with her assistant, and sessions with the second author when attempting implementation in her classroom. All of this administrative support

and guidance not only facilitated the change, but helped to increase the change in her practice in the area of teacher's role. Finally, in the domain of teacher's role the first author was in control of her own practice or actions. She could document, facilitate, or promote her own knowledge and this resulted in her making the greatest change in her role.

Change in Children's Participation

While the first author could influence change in her own practice as soon as she learned what the Reggio practice involved, she could not equally influence the change in children's practice. However, the entries did indicate she was able to influence the children's practice 23 times. The first author could model behaviors such as sharing, collaborating and working to create a project, but she could not make the children do these behaviors. These behaviors had to come from the children. This factor of self motivation on the part of the children influenced the first author's practice in bringing about a change in their participation. For the children, much like the first author, this was a new way of learning. Over time, with modeling and experience the first author could

increase children's change.

Change in Image of the Child

The factors which influenced the frequency of change in teacher's beliefs were different from those that influenced teacher's role and children's participation. The first author had no prior experience with beliefs concerning the image of the child. While Reggio workshops and readings could teach the first author how to practice from a Reggio perspective by providing concrete ideas such as documentation and setting up a learning environment. The workshops and readings could not tell her what her beliefs should be and then simply expect that change in her belief. She had to construct her beliefs based on her experience of implementing the recommended Reggio practices. The first author agrees with Guskey's (1986) model of the "process of teacher change." Guskey asserts first there must be a change in teacher's practices, this leads to change in learning outcomes, and this results in changes in teachers' beliefs and attitudes.

When the first author changed her practices from individual planning to collaborative planning, from

teacher as dispenser of art to students as constructors of art and from limited centers to enriched centers, this resulted in changes in the children's outcomes. The first author began seeing the child as a strong, curious, and independent learner exactly how Reggio describes in the discussion of the image of the child (Neugebauer, 1994) As a result, this changed the first author's beliefs and attitude regarding the children.

Change in Parent Involvement

As reported in Table 1, there was no frequency of practice directed toward parent involvement. How to involve parents in the classroom caused "paralysis" (DeVries, 1988) on the part of the first author. There was no parent involvement during the study, resulting in no change in the domain of teacher practice directed at parents. In Reggio, the parents actively participate in the classroom, and help with planning activities. As demonstrated by the reflections, the first author was experiencing fears, doubts, and questions regarding the change. The lack of involvement of parents can be explained in two ways. The first author herself felt inadequate in what she was doing and the philosophy was not clear to her, so

how could she take on the responsibility of inviting parents into her room to explain to them their role in the Reggio philosophy. Second, because of her feelings of inadequacy she found it intimidating and threatening to invite parents who would judge her expertise into the classroom. The thought of involving parents in the classroom when the first author was not confident about her role brought more doubts to her mind. Rather than face these doubts or thoughts of inadequacy, the first author did nothing, resulting in DeVries' (1988) "paralysis." The first author feels that the area of documenting the process of change in teachers involving parents will have to be addressed in future studies. The teacher will have to establish a strategy to include the parents in the classroom before the school year begins. Then during the year she will be able to implement the strategy, reflect on it and consider alternatives where they are needed.

Limitations

1. The first author's shift was a lengthy process over time. However the journal entries were only for four weeks. There may have been shifts prior to the entries and following the entries which have not been recorded

in this journal.

2. The first author attempted to write what she thought was most salient in her change as the process was ongoing. It is possible that there were other shifts during this time, but she did not then consciously consider it a shift, thus resulting in an advertent oversight. As a result these findings are conservative. Perhaps there may have been more actual changes than reported in the journal.

3. The changes began in the first semester, however the documentation began in second semester. Therefore, only a part of the documentation of teacher change is recorded here. Retrospectively, the first author recollects that major changes really took place within her thinking processes and shifts in her beliefs as well as her practices during the first semester. If the record was kept from first semester through the second semester the shifts in belief and practices would have been greater. Hence, again these frequencies of change are once again under reported.

4. The first author did not systematically record her conferences with the second author in her journal. During these sessions changes were taking place in the

first author's thinking. Had she systematically kept a journal on these conferences and further reflected on them, then she would have had many more entries to show changes in her beliefs. Once again this resulted in underreporting of the changes in her beliefs.

5. The first author did not have an independent observer in the classroom who took notes of her changes in actual practice and then compared those notes to the journal entries. This would have allowed the observer to cross reference the entries for reliability and validity. This would have increased the accuracy of the journal, enhanced her reflective abilities and she would have gained more from her reflections. This was done in Etchberger & Shaw (1992) study of a teacher trying to change from a traditional approach to one of Constructivism. It was shown to be an effective strategy and research design. This study has that limitation.

Recommendations

The following are recommendations for teachers shifting to a Reggio Emilia approach using reflective practice. First, accept the fact that all teacher change is a continuous and ongoing process. Therefore,

do not expect the change to occur instantly after reading a book on the Reggio approach. Remember change is a process and a process means a series of actions, steps, phases, or functions which bring about a result. The teacher must prepare herself to accept this kind of thinking.

Second, the teacher must have a positive attitude and be ready to take risks, make mistakes, and sometimes fail. This is all part of learning. At the same time, the teacher must be ready to accept criticism from other teachers and administrators if they are not involved in the change.

Having accepted the above criteria the teacher is now ready to begin the process of change. The first author asserts that the strategy to facilitate change is reflective practice by regularly writing in a journal and supporting your entries with scholarly readings. However, reflective practice will be enhanced if used in conjunction with sessions with a mentor, joining a network, meeting with co-workers as well as reading scholarly works on Reggio Emilia, teacher change, and reflective practice.

Conclusion

The first author concluded that a teacher could shift from a non-Reggio approach to that of Reggio Emilia using a journal to document her reflective practice. The first author learned that while change is a lengthy difficult process it can be facilitated by reflective practice with the use of a journal. Reflective practice is the strategy and the journal becomes the vehicle for making the change. Thus, the journal is a tool for self learning. Reading and re-reading the journal enabled the first author to visualize herself in the frame of the classroom and this resulted in her making shifts in both her beliefs and practices.

This study can enable other teachers to envision change as a multi-faceted process which continues throughout the career of the teacher. This study demonstrates how the first author using reflective practice faced obstacles to change, moved through the phases of change, and it resulted in making a change in her beliefs and practices.

This study suggests that reflective practice when systematically documented in a journal and supported with scholarly readings could facilitate the

professional development of a teacher. This study is one such example of a shift from a non-Reggio approach moving closer to a Reggio philosophy. The first author does not claim that she has mastered her beliefs and practices entirely from a Reggio perspective. She sees this as work in progress and does not label herself as a Reggio teacher.

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Appendix A

Idea Units used to code Journal

The first "idea unit" contained teacher beliefs. It included the thinking, views, and beliefs of the teacher.

1. Shift in teacher beliefs

The teacher's beliefs which are orally stated or behaviorally recorded by the teacher demonstrate that children can do what they set out to do and that children are strong beings, curious and full of potential, and that children can construct knowledge and develop skills.

The shift in her belief regarding children's capabilities is demonstrated by comparing children's performance now to her beliefs of their performance before she introduced Reggio in her classroom. The entries will use language such as "I believe...

2. Shift in teacher's practice directed at children .

These entries show the teacher providing opportunity for children to collaborate with other children or the teacher, using language such as, "let's do this",asking each other about ideas, sharing ideas, and working side by side to accomplish something. In addition to the teacher providing opportunity for children to represent their ideas through languages such as written language, oral language including

songs, visual language, all types of art, movement including dance, drama including dramatic play, and the language of blocks and manipulatives.

3. Shift in teacher's practice directed at parent involvement.

These entries show the parents actively participating in the classroom, and helping with planning.

4. Shift in teacher's practice directed at overall participation (teacher's role).

These entries show the teacher questioning the children, provoking learning, acting as a resource person by providing books, videos, and other learning materials, working along with the children on projects, documenting the children's work through audio tapes, video tapes or photographs, (acting as the children's memory) and acting as a facilitator in learning. She uses the children's interests, ideas, and skills to make decisions about what will happen in the classroom. She prepares the environment, is a risk taker, and provides children enough time to think through, participate, and revisit activities. Lastly, she intervenes when necessary.

Appendix B

Code for Abbreviations

T=teacher Children=M, Bra, Steph, Jac, Jus, Aya, Rac, Bri, Yuya, Chr, RO, Hani, Anna, Zac, Stev, Lace and Est.

Idea Units

1 = Teacher Beliefs (Image of the Child)

2 = Teacher's Practice Toward Children

3 = Teacher's Practice Toward Parents

4 = Teacher's Overall Practice (Teacher's Role)

If there was perfect agreement between raters than a score is recorded. When there is disagreement between raters both scores are recorded. The stared score is rater no. 1. whose scores are reported in the results.

Appendix C

Journal

April - May, 1994

Observation #1
4-12-94
Before beginning this study, changes were made in this teacher' classroom. The environment was changed to provide the children with more access to materials. Paper was displayed on shelves which allowed the children to see what was available. Markers, crayons, glue, scissors, and pencils were put on lower shelves to make them more accessible to the children. The teacher showed the children other materials such as pipe cleaners, tissue paper, fabric, paper rollers, meat trays, which could be used in projects. The teacher also suggested that the children bring scrap box materials from home which would be handy to have for projects.

Circle Time
The children were trying to decide what our next topic of study would be, based on their own interests. I observed them during free choice time, and listened to conversations of the children both in school and on the playground. I also asked questions. For example, several children seemed very interested in an astronomy book on our book shelf. I asked if they wanted to study space, but there seemed little interest.
T: What would you like to learn about next? What should we study?
M: Sea Animals
Steph: Animals

Reggio Reflections on Specific Behaviors

When the teacher transformed the environment, which Reggio states is the "third teacher" in the classroom, (Gandini, 1993) she was acting as a Reggio teacher. As a result, [she was facilitating knowledge, provoking learning, and acting as a resource person.] 4
Benham (1992)states in Reggio the teacher is immersed in the children's ideas, she is a listener rather than a speaker. Here the teacher is giving all the children a chance to be a part of the decision making process. [I was taking notes during this time,] and many of the children were interested in which subject would win the vote. Their expressions changed when their subject did not win. I do not think they realized what voting really meant. 4
Projects begin with teachers observing and questioning the children.(New, 1993) This is all part of the teacher's role.
This is all very new to me. Before Reggio, I would make the decisions about what the class would study. This would have been what Piaget termed a heteronomous relationship. [I observed the children,] then gave them the opportunity to share their ideas and vote on their ideas to decide what to study.] 4 2 Piaget terms this

Observation #1 (cont.)

Jac: Plants or dolphins
Jus: How do they build things?
Hani: Animals
R.O.: Bones, rocks
Aya: Birds
Rachel: Animals
Bra: Whales
Bri: Fish
Yuya: Earth
Chr: Elephants

We narrowed the field to two choices by letting the children vote for one of the following: animals, sea animals, plants, how do they build things, and rocks.(birds and elephants joined animals and fish, dolphins, and whales became sea animals.
When the topic that interested them was called, the children raised their hand to vote. Sea animals received the most votes.

T: Sea animals received the most votes, so it wins. Your homework tonight is to think about what you would like to learn about sea animals.

Reggio Reflections (cont.)

relationship an autonomous or co-operative. Reggio calls this collaboration.

[I believe the children can be decision makers] this is part of Reggio's image of the child as a competent, strong, curious learner. (Merrill-Palmer, 1993)
The teacher is asking the children to be decision makers. This is a role change for both the teacher and the children. Before Reggio I gave the children choices when it came to stories and games, but not major decisions like what we would study.

Immediate Summative Reflections on #1

1. This way of approaching material was new to many of the children. Some of the children were still not really sure about what they wanted to study. If their neighbor voted for animals, they did to. Many of the children are not sure of being the ones to make a choice. I think they expect the teacher to make the decisions. The higher level thinkers (children who show interest in what we have done, act on that interest, voice an opinion, and respond in class.) like M. know just what they want to learn, however I think this would case no matter what the teaching philosophy.

2. I tried to write whatever they said down, telling them it was important. I wanted them to feel what they said had value. I wrote as the children talked, asking them to repeat ideas when I was not sure what they said or meant. They were aware I was writing as they spoke.

3. I have my doubts where this study of sea animals will lead. Would this group be able to work together and create a project? We could study so many different aspects of the ocean and the animals in it. De Vries (1988) would label this stage skepticism. Malaguzzi (1994) speaking about Reggio states life has to be somewhat restless, unknown, and agitated.

Later Summative Reflections (August, 1994)

I did not inform the parents of the children's decision to study sea animals until about two weeks into the study. Perhaps, the beginning would have been a better time to do it. They could have collaborated with both the children and the teacher.

Observation #2 Circle Time
4-13-94

T: Did every one do some good thinking? Let's find out what we know about sea animals. Let's make a list of what we know.
Jac: They swim.
Anna: They eat colorful rocks and suck rocks.
Zac: They swim and spit gravel.
Hani: They have things they can flap.
Bra: Those are called fins.
T: Do all fish have fins?
M: They have lungs in the side so they breathe out.
Bra: I know what a tiger fish and shark look like.
ST: Fish can't go out of the water.
Bri: I think some fish can't be together cause one fish in our tank ate another.
Rac: They (fish) eat colored flakes.
T: Do different fish eat different food?
Rac: The colored rocks are called gravel. You can't feed them too much food.
Stef: A lot of fish are small.
Chr: Some fish are medium.
Aya: They live in the water.
Hani: A catfish has whiskers.
Jus: If you give fish too much food they'll eat some, but the rest will pollute the water.

Reggio Reflections on Specific Behaviors

[The teacher is questioning the children] to find out what they know about sea creatures so that she can help the children decide what they want to learn. She is giving each child a chance to speak and tell what they know about fish or sea creatures. 4
Before Reggio, I asked the children what they knew about a subject, however I already had my lesson plans made and knew exactly what direction the lessons would go.
[I believe this is an example of higher level thinking on Bri's part.] 1
This dialogue shows [the teacher asking a question,] trying to get more thinking on the children's part. 4
Neugebauer (1994) speaking about Reggio states that the questions the teacher asks are not directed at solutions, but rather at more possibilities for the children to explore. A solution question seeks one right answer, while a possibilities question seeks many types of answers. When the teacher asked about what fish eat, she was not looking for one answer, but trying to get the children to think about all the different possibilities.
[I believe Jus is doing higher level thinking, he is not just concerned with fish, but with fish and their relation to pollution. 1

Immediate Summative Reflections on Observation #2

1. I have an idea of their knowledge base. We have so much we could learn! This study could go in several different directions. It could be just ocean animals, or it could include many other aspects of the ocean. It seems like most of the children are just familiar with fish as opposed to animals of the sea. Our studies will begin with fish, and then we will see where this leads us.

2. Tomorrow I plan to bring in several resources from the media center for the children to examine. I hope this will give direction to our study. This is part of the teacher acting out her role as a facilitator.(Edwards, 1993)

3. Making a list of what the children think they know about sea animals can do several things:
   1) It gives value to what the children say. (Katz, 1993)
   2) It shows what they know.
   3) It can be used to provoke an area of study.(Trepanier-Street, 1993)
   4) It also allows the teacher to facilitate learning. (Merrill-Palmer, 1993)

4. The children are listening to what each other says and adding their comments. Reggio calls this collaboration. (Merrill-Palmer, 1993)

Later Summative Reflections (August, 1994)

I wrote down all the children said, but did not use chart paper. This would have been helpful to refer to as the study continued. We could have checked off each area as we completed it showing the children what we had learned.

I also could have suggested the children draw pictures of what they know about fish or sea animals. This could have been use for a before and after learning lesson.

The entries do not list all my comments and responses because I was trying to write the children words. I did respond positively to all comments they made and tried to encourage them.

Observation #3 Free choice
4-14-94

One of my counterparts divides the children into groups, and then lets the children choose their area of interest. As an experiment, my assistant and I choose work groups for the children. I was hoping to involve those children who usually are not a part of a group.

Group I
E. leaves the group and walks away from the table where the others are drawing. Aya draws a fish picture, but seems to ignore the other children.
T: What kinds of sea animals would this group like to learn about? Have you looked at some of the books we have about different types of animals that live in the sea?
The children decide to look through the books.

Group II
This group is more verbal. Two children decide to draw sharks and begin immediately. The others decide on dolphins and they begin drawing. They ask that some of the pictures in the book be photo copied so they have more than one to look at when drawing.

Reggio Reflections on Specific Behaviors

Risk-taking is encouraged in the Reggio philosophy. (Benham, 1992) Knowing this [I decided to take a risk and try a new approach.] I created the groups for the children to work in. Before Reggio, I did not consider myself a risk taker at all. I knew what I was going to do for the most part each day in the classroom. I had plans and generally followed them. 4

My impression of Group I is [I don't believe that it will work.] However, [I will give them time to work at their own pace.] Reggio does not rush children. (Benham, 1992) 1 4 2
[I believed this group would not work] because there was little communication between the members of the group and there was no excitement in this group. [I wanted to intervene!] I wanted to make suggestions. I want them to be excited and want to learn. Carolyn Edwards (1993) states knowing when to intervene is a difficult aspect of the teacher's role in Reggio. It takes analysis of the children's thinking. 1 4

[I believed Group II showed the Reggio image of the child.] The children who knew what they wanted to do began to work, and those who needed materials asked 1

Observation #3 Free Choice (cont.)

Group III
Jac: Do you want to do sea turtles?
Chr: I want to do a porpoise.
Jus.: I want to do a whale.
They decide each will draw what they want since this is the first or planning stage of what will come.

Reggio Reflections (cont.)

for them. [I provided resources by photo copying the pictures.] 4

Group III is an early example of [children collaborating to create a project.] 2

Immediate Summative Reflections on Observation #3

1. I have my doubts about whether the groups will work, but I am willing to try for a while. (DeVries, 1988 - skepticism) The reason I have doubts about the all the groups working is that some of the groups (I) did very little interacting. My criteria of a group "working" is that the children are able to collaborate and create a group project. It could be a simple drawing, or a major project which takes several days or weeks.

2. I am not sure I can give four groups what they need, but maybe this will help me from intervening too much. Reggio does not want the teacher to intervene unless the children ask for help. With four groups I will be too busy to intervene unless the children need me.

3. Acting in the role of the facilitator I have provided the children with books about animals of the sea, children's magazines which contain very real photographs of sea creatures, and some cards which are used to identify fish when snorkeling.

Later Summative Reflections (August, 1994)

Maybe I should have asked the children to choose their own group, but I know from experience that some of the children will not join a group to create a project. Some of the children do not know how to join a group whether it is blocks or a project. By putting them in group I was trying to eliminate this problem.

OR

Maybe I am acting as Donald Schon (1983) suggests and not reframing my ideas of the classroom. The old frame has the teacher making the decisions, (heteronomous vs. autonomous relationship) and the new frame gives more of the decision making to the children. In the future I will first let the children choose their own groups and observe the results. I want the children to be happy with the people they work with. If I find that some children do not have a group I will try to suggest they form a group. This group may need more modeling by the other groups, or collaboration with a teacher.

Observation #4 Circle time
4-15-94

Jac. brought a sea turtle model to share at circle.

T: How is it different from other turtles?
Jus: It doesn't have the same arms and legs.
M: I saw a different turtle called a logger head.
T: Do all turtles have a tail? Do all turtles have dots, or just sea turtles?
RO: What do they eat?
T: What do you think they eat?
Rac: Turtle food!
M: They eat jellyfish, crab, man-of-war.
Jac: Do they sneak up and grab the food?
T: How do they get their food?
Bra: Dig?
T: How can we answer all these questions?
M: Look in books.

The children decided to look in the books we have to find out more about turtles.

Free choice time

The children began to play "sea world". They made tickets, and blocks were used to be large fish. The children wanted the fish to jump. M. held a long block and wanted to be the trainer, but he needed an animal.

Reggio Reflections on Specific Behaviors

[I believe Jac. is interested learning about sea turtles.] Bringing his model to class, DeVries (1988) states demonstrates he is active in constructing his own knowledge. This is part of the Reggio image of the child.(Merrill-Palmer, 1993) Seeing Jac's interest in sea turtles [I hoped to encouraged him by asking questions about the sea turtle.] Later [I took him to the media center to get books about turtles.] [I am asking questions to facilitate learning.] Neugebauer (1994) states Reggio teacher's ask questions to facilitate more possibilities for the children to explore. Before Reggio, I asked questions of the children, but we never had any studies in such detail. Ocean was one week a year with a few simple art activities that everyone made the same. I did not encourage the children to go farther and learn more about our topic of study. When the [teacher suggested using the resource books in the room,] she was acting as a facilitator. Before Reggio, if the children had questions about subject matter I brought resource materials to class. However, I found myself making more of an effort to provide materials for the class when we got involved in a project.

1
4
4
4
4

Observation #4 (cont.)

T: What could you use?
M: Blocks
T: Can blocks jump?
M: I could use a rubberband.
T: Is there something from the room you could use?
M: I could make an animal.
T: What do you need.

M. decided to draw a large sea animal and asked for bulletin board paper.

Reggio Reflections (cont.)

["Sea world is an example of symbolic representation.] Their dramatic play is one of what Reggio terms the "100 languages" of children. 2

The teacher is trying to promote higher level thinking on M.'s part. [She questions him, and challenges his answers so he will continue to think.] 4
I wanted M to think what he could use for his jumping fish.

The environment which is considered a "third teacher" in a Reggio classroom,(Gandini, 1993) was transformed here by [the teacher making materials available and displaying them] 4
attractively. As a result, [M. was influenced by the environment and constructed a fish out of paper.] [I believe this showed his knowledge of ocean.] 2 1

Earlier projects were also displayed in the room. One corner had stuffed paper dinosaurs hanging in it. I think this might have influenced M's decision to make a fish.

Immediate Summative Reflections on Observation #4

1. The children are beginning to show their interest in the subject matter through more than one medium. Jac.'s bringing the turtle to circle time, the dramatic play of "sea world", and in their drawing. We still don't know where we are going with all of this. So far we have no specific plan of what we are doing. I am not sure what the children will decide to make.

2. I am trying to ask questions to provoke learning and some of the children are using the resource books.

3. My questions to M. are to get him to think through what he is doing. Reggio is concerned with the children planning and working through a plan. I often tell them their drawings are their plans, and plans can always be changed. Before Reggio, I would have just told M. what to use for his project rather than question him to get him to think about what he could use.

4. The children did not work in their groups today, but with whoever they chose. I still hope to draw in the children who are not working with someone. I hope to suggest they work together or even on their own to create something.

Later Summative Reflections (August, 1994)

I did not discourage the children from working with whoever they chose on their own. I am more concerned with their collaboration and letting them try ideas their own way. (Maybe I can reframe, and change as Donald Schon(1983) states.)

Observation #5
4-18-94

I attended a Reggio workshop, and my assistant took over the class. She suggested (teacher directed) the idea of sea monsters. She encouraged the class to draw whatever they wanted on large sheets of construction paper. The results were good drawings with lots of imagination (one sea monster had eighteen eyes, one had three heads, one was a ghost sea monster which said boo!, another child drew a butterfly sea monster, another child drew four figures which she said were sea monsters playing, and another child filled the paper with many types of round red figures which he stated were twenty-three anemones attacking a sea monster.) The pictures were combined into a sea monster book.

Reggio Reflections on Specific Behaviors

This is a good example of what Wasley(1991) terms the "smorgasbord" approach. She suggested using both old and new ideas when changing. While [the teacher suggested the idea,] [the children drew their own idea of sea monsters.]

4

2

Later Summative Reflections (August, 1994)

My assistant and I collaborated to come up with the idea of a sea monster book. We thought the children would enjoy it and their response showed they did.

Before Reggio, my assistant would have followed whatever plans I had made. I generally left the materials and we would discuss what she would do. The sea monster book was a teacher directed idea, however the children could use their own ideas to make their monster.

Observation #6
4-20-94

I read a book which one of the children brought to class. The children were very involved in the material. It pertained to starfish and man-of-war. It described how and what they eat in detail, and had informative pictures. We will use this knowledge tomorrow. (school program interrupted class)

Reggio Reflections on Specific Behaviors

[I believe this is another example of the children showing interest in the study by bringing books to class.]

Later Summative Reflections (August, 1994)

I can still remember the children's interest in the book because of the idea of the stomach coming out of the starfish and entering the clam to eat it. I remember I used my hand as a starfish with a clam shell to demonstrate the technique. The children were fascinated by this.

It was meaningful because they remembered it the next day. The whole episode was spontaneous. I read the material and then demonstrated it. I was learning right along with the children. This is a significant part of the Reggio philosophy.

Observation #7
Circle time 4-21-94

Jac. brought in shells to share at circle time.
T: What do you think lived in those shells?
Hani: Crabs
Bra: Clam
Lace: I found a shell in Fla. and it looked like a dinosaur shell.
T: Why do you think it was a dinosaur shell?
Lace: 'Cause it had lines on it like bones.
T: Maybe you could draw how it looked.

Jac. passed his shell around the circle.
T: Is it hard inside?
RO: It's kinda hard.
T: How could we find out more about this shell?
Bra: We could look at it with a magnifying glass.
RO: Get books from the media center.
T: After circle time we can go and get some shell books from the media center. We can also put the shells out with a magnifying glass.
Rac: (looking at the shell) I don't know what kind of animal lived in here.
Bra: It would have to be small.
M: It couldn't be a clam it's too small.
T: What questions do we want to get answers to?
Class: We want to know about shells.

Chr. shows a starfish she has brought to share.
T: What is Chr. holding?

Reggio Reflections on Specific Behaviors

Jac. continues to bring items from home which pertain to our study. [I believe this is how he is showing his interest, he is active in constructing his own knowledge.] This also demonstrates my shift in thinking. Before Reggio I was never very concerned about what the children brought to class. Now, I can see how the children's interest creates a momentum which goes on and on. Jac keeps bringing objects from home, and we learn more and more. 1

Because [I am becoming a better observer and listener,] I believe Lace is confusing the word dinosaur with fossil. Earlier in the year we studied both dinosaurs and fossils. I was hoping she would draw her shell, but she did not. The subject was not made clear to her. Forman (1990) states drawing lets the teacher and child look at the child's understanding of a subject. 4

[I believe Bra.'s answer is more than just saying look in books like the others, she is thinking of new ways to learn about the shell.] 1

[I tried to guide their study by asking questions. 4

Observation #7 (cont.)
All: Starfish
T: Does anyone remember what we learned about starfish yesterday?
Bri: The tummy comes out of the starfish.
Chr: The starfish tries to open the clam shells to eat them.
T: Then what?
Jac: He (the starfish) opens the clam, and sticks his stomach in and eats the clam.
T: Great remembering!

(circle time is ending)
T: What are your plans for today (to the class)
Bra, M., Jac, and Hani will work together on M's sea animal. It is turning into a sea turtle.

Lace, Bri, Chr, and Stef are going to work on a shark.
Aya and Yuya are going to work on a starfish. The rest are not sure what their plans are.

Reggio Reflections (cont.)

[I believe Chr. like Jac. is showing her interest by bringing a starfish to class.] 1

Another part of the teacher's role in in Reggio is the teacher acting as the group's memory. She tapes their dialogue and documents their progress with pictures. (Edwards, 1993) [The teacher is helping the children remember what happened yesterday.] 4
Forman (cited in Trepanier-Street, 1993) states, asking the children to "remember" allows them to use past learning and build new learning.

Before Reggio, I did not act in any way as the children's memory. I did not take notes, tape the children or take pictures. I now find all these methods of great value to me and the children. It is my reflective practice with the children.

[Each of these groups have decided to work together on their own.] This is a first step in collaboration, an important part of Reggio. 2

Immediate Summative Reflections on Observation #7

1. The sea animal study seems to be gaining interest. The children are starting to bring in materials from home. They are interested in what I am reading to them, and they are acting on their own to complete projects.

2. The fact that some of the children have found a group and seem to be starting to collaborate is encouraging. I am also encouraged by the way the children are remembering what we have discussed.

3. I am hoping that their drawings will demonstrate their understanding, thus far they have not.

Later Summative Reflections (August, 1994)

I could have asked if anyone would like to draw how a starfish eats a clam. This would have shown me the child's understanding of the process. We also could have used dramatic play to act out the process.

Observation #8 Free choice
4-21-94
(Looking at his large drawing which he made in Observation #4)
M: This is one-sided, you want it to be two sided?
Bra: I don't know how we'll do it.
M: We can stuff it.
(They kept a picture of a sea turtle close by, and kept referring to it. They took their time, and carefully drew lines on the turtle.)
M: We have to show the parents this. (to teacher) Can we sign our names like the thing hanging in the hall?
T: Yes, we'll put all your names on it.
Bra: It's starting to look like a turtle.
M: We made a "fluke" on the turtle. It's okay it's still a real turtle.
Bra: No, that's a tail.
Jac: I'll draw a flipper for the back.
M: You can erase that Bra.
Jac: Are we gonna make stripes?
Bra: Let's make it brown. (the flippers)
Jac: Are we gonna make dots on the head?
Bra: Let's just make the rest brown. (They all agree)
Jac to Bra: You do the flipper.
Jac: I'll do the face.
Bra: Can it be a spaceship turtle?
M: No, we want it to be real. Let's name it. Land and water, Lander for land and water.
Bra: Spacey the turtle
The boys continued to work.

Reggio Reflections on Specific Behaviors

[This whole dialogue between the boys is an example of collaboration.] Reggio states this continuous interaction is education. (Merrill-Palmer, 1993) 2

The teacher did not intervene during this observation. Magaluzzi (1994) states this is part of the role that needs to be learned. Rather than rushing to help or answer questions, it is better to sit back and allow the child to learn for himself. Having observed the boys working, I would agree with Magaluzzi. [I do not intervene unless the children ask for help or seem frustrated by what they are trying to do.] 4
This demonstrates a shift in my behavior.

[The boys want this work or symbolic representation] to be thought of as a real turtle. 2
They have referred to the book to insure this. Reggio tries to provide the children with real resources when possible.

[The teacher is showing she believes in and values their work.] 1
They know that the parents will be coming to see their work, and they want to make sure their hard work is recognized.

[I believe that M corrects himself when he adds a "fluke" to the turtle because he knows that a real turtle does not have a "fluke". He wants his turtle to be thought of as real turtle.] 1

Immediate Summative Reflections on Observation #8

1. I thoroughly enjoyed watching these children work. They co-operated and collaborated while they worked. Their interest in the project kept them working. Their enthusiasm showed me that they enjoyed what they were doing. This group demonstrated the image of the Reggio child as a strong, competent learner.

2. I just sat and observed without intervention. While it is often difficult for me, I know I am learning by doing it. It is difficult for me to standby and watch and not be a part of the project. I am still learning to change my role as a teacher.

3. As I observe the group I am always writing down their words. The children are aware of what I am doing, and I think it makes them feel important, and gives value to their work. When I display their work or pictures of their work I try to include the dialogue I have written down.

Later Summative Reflections (August, 1994)

I think at this point I was still changing, moving toward becoming a Reggio teacher. This is why it was difficult not to intervene. It is an example of Piaget's autonomous behavior versus heteronomous behavior on the part of the teacher.

I wanted the change to just happen, but after eight years of teaching one way I will have to be happy with each small change leading to bigger changes.

Observation #9 Free choice
4-21-94

Lace, Stef, and Chr decided to make a shark. The girls formed their own group.

I supplied them with a large sheet of bulletin board paper. However after drawing the shark they were baffled about what to do next. I questioned them hoping to find out what they wanted to show about a shark.

T: Will you be cutting this out? Is this going to be a mural? What do you know about sharks? What do you want him to be doing?
Stef: Can we cut it out and put lots of fish in the stomach?
Lace: Like the shark ate all the other fish.

T: It's up to you girls to decide whatever you want. Let me know what you will need.
They decided to paint the area around the shark blue. The three girls worked quickly, more concerned about getting it done than how it looked.

Reggio Reflections on Specific Behaviors

[The girls are collaborating to draw a shark.] This is an example of the emergent curriculum of Reggio. (Rinaldi, 1993) The subject of sea animals has been decided by the group, and now this group has chosen what they want to do. 2

As part of the her role in Reggio, [the teacher is trying to provoke the children to think about what they want to do regarding the shark. She does this here by questioning the girls.] 4

Unlike the boys group who are working on the turtle, this group is not really sure what they want to do. Time is an important element here. Reggio suggests giving the children time. [Tomorrow, I will suggest they "revisit" their work and decide what to do next.] Time is also a factor supporting collaboration. 4

Immediate Summative Reflections on Observation #9

1. This group, like the boys group, can collaborate. I do not think this group has the knowledge base that the boys group has.

2. Unlike the boys group, this group, is not as willing to take a chance and make a mistake. They will take a little more time to decide just what they want to do. This is a part of Reggio.

Later Summative Reflections (August, 1994)

1. I could have stopped the girls (intervention) and supplied them with all the resource we had on sharks. This might have been helpful because unlike the boys group they needed intervention to help them work as a group. They needed to be taught how to work as a group.

2. I also might have suggested they ask the other children about sharks, or for ideas.

Observation #10 Circle Time
4-22-94

I read from the book we used earlier in the week. It has illustrations of sea creatures, and describes how they live.

T: What creature did we talk about yesterday?
Bri: Starfish
Jac: Clams
T: I'll give you a clue. Its name starts with man.
Rac: Man of war

We discussed the man-of-war and the job of the tentacles, and how the gas bag works. I used my hands as tentacles. The children stood up and began to act as man-of-war catching other fish. They moved their arms and pretended to catch fish.

Circle time ended with the children going to centers.

Boys(M., Bra, and Jac.) working on the turtle.
M: I'll show you where the shell starts, behind the flipper, and ends in front of these flippers.
Jac: Oh, so we'll put it here. (They are deciding where to put the egg carton turtle shell.)
M: We need to cut it. (an egg carton)
Bra: We're old enough and able to cut. (Their scissors will not do the job, so they ask me to help.)
T: Where do you want me to cut? (Jac shows me)
Bra: There's a problem it will stick out too far. (They are covering the paper turtle with egg cartons to act as a shell.

Reggio Reflections on Specific Behaviors

[I was being a resource to the children by reading this material.] However, I did this (reading and explaining) with the children when I was not using the Reggio philosophy. 4

Here, [I was giving the children clues, to help them remember.] Reggio uses documentation in the form of tapes, and photographs to help the children remember. 4
(also see entry #5)
This is also an example of Piaget's Assimilation and Accommodation.

[The children acted spontaneously, and each child became a man-of-war.] We all joined in. Before Reggio, I might not have encouraged this behavior during circle time. 2
I would have saved it for game or music time. [I am more relaxed now and more of a risk taker.] This is also an example of the "100 languages" of children that Reggio speaks of. Children can express themselves in many, many, ways. 4

[The boys are collaborating to create the turtle's shell.] They are listening to each other. 2

During this episode [I just sat, listened, and observed the boys, until they decided they needed help.] This was new to me. This is all a part 4

Observation #10 (cont.)
4-22-94

T: What's the problem?
Bra: We need to cut it here.
M. tries to cut an egg carton without opening it up.
Jac: Open it up!
M. opens it up and cuts.
M: I did it!! Line up the cartons for the shell.
Jac: Not perfect, but good.
M: It's okay if not perfect.

T: Are you going to leave it where it is? (The cartons are sitting on the paper.) What is your next step?
Jac: (Hesitantly) We're gonna paint it.
T: Think about it, what do you need to do first, then next?
Bra: We need to glue it on first. (the cartons)
Bra: Let's start gluing. (to Jac) When we say glued down then you can paint.
M: Glued down.
T: Boys there are different kinds of brushes under the sink. You can choose what type of brush you want to use.

Jac: Should I start?
Bra: I think we should use tooth brushes to get all the bumps. We need to turn this one. (pointing to cartons)

Reggio Reflections (cont.)

of the teacher's role. (Edwards, 1993)
[With collaboration the boys solved problem.] 2
Jac. helped M. solve the cutting problem.
M. is very excited that he has been successful at cutting the carton.
Before Reggio, I would have said, "M. try opening it up and cutting it;" rather than let them figure it out for themselves. I also would have given them suggestions for lining up the egg cartons.
Now, [I would rather not intervene, and have it be their work.] 4
Before, I would have told them to glue down the egg cartons, now I try to sit back and listen and watch.

[I questioned the boys to get them to think about what their next step will be.] 4

[I provided them with a variety of brushes] because [I believe that the boys, given the chance could problem solve and see which brush would work best for the job.] 4 1

Before Reggio, I was more likely to suggest what type of material the children should use for a job. Now, [I try not to intervene and make these suggestions.] I let the children make more decisions on their own. 4

Immediate Summative Reflections on Observation #10

1. M., Bra, and Jac are proof of my change and my image of the of the child. They are strong independent workers. They can make decisions on their own. I can see the philosophy at work.

2. I chose not to intervene regarding the egg cartons, and the boys were able to problem solve on their own. I learned about the group by listening and observing, which is the teacher's role in Reggio.

Later Summative Reflections (August, 1994)

In this entry, I could have questioned the boys about their knowledge of sea turtles, but I think it would have interrupted the flow of their progress.

Rereading the articles on change, and reflecting on these journal entries; I find that I agree with Adler (1993). She argues that as teacher educators we research various phenomenon, but rarely do we look at ourselves. I find that I reflect more on the Reggio philosophy than on my change.

Observation #11 circle time
4-25-94
T: Someone is wearing something special. The children begin looking at each other.
RO: It's M. (M. is wearing a shirt from an aquarium with lots of fish and sea plants.)
M: We could match my shirt to the fish cards. (I supplied the children with plastic cards with fish pictures used when snorkeling.)
T: What else could we do with M's shirt?
M: Draw it!
T: That's a good idea.
Zach wore a hat with a shark on it.
T: Who else is wearing something special?
Jus: Zac has a shark on his hat.
Lace: It's a whale
Zac: It's a shark, it has teeth.
T: Do whales have teeth?
M: Yes
Zac: They don't have this. (points to teeth on hat)
M: Whales have a baleen. (He describes how a baleen acts as a strainer to the whale.)
The discussion ends and the children go to centers.
M. is reading a book about man-of-war.
M: A man-of-war has to float when he is young. When he's grown up, he can live on the bottom of the sea. Can I make a man-of-war?
T: What would you like to use?
After some thinking he decided to use a plastic bag and some pipe cleaners. With my help he blew up the plastic bag, and secured it with a twist tie. He then added the pipe cleaners.

Reggio Reflections on Specific Behaviors

[I tried to provoke the children's interest in what we are learning.] In addition to this, I wanted to give special attention to those children who wore clothing with sea creatures on it. Before Reggio I might have commented on a child wearing a particular item of clothing, but now I try to tie it to our studies. 4

[I believe that wearing clothing with sea creatures shows me that the children have an interest in our subject matter.] 1

[I asked the question about whales having teeth because we have talked about this and I am trying to see what the children remember.] [I believe that M. is demonstrating a competent learner that Reggio talks about.] (Merrill-Palmer, 1993) 4 1

Before Reggio, I encouraged children to be creative while we all did very similar projects. Now with Reggio, if even one child wants to try something (like M. and the man-of-war) [I encourage it and help to do it.] I am both a facilitator and a resource person here. 4

Immediate Reflections on observation #11

1. M. and his desire to make a man-of-war was wonderful to watch. He read about it, and then acted on it. After he made it, he added it to the turtle mural. While it would be difficult to help twenty children all with different ideas, I liked helping children create and learn about what they want to know.

2. The children wearing clothes with sea creatures on them showed me that they have interest in what we are learning. I bring attention to their clothing to make them feel special, and to recognize that they have contributed to our lesson by wearing that particular item of clothing.

Later Summative Reflections (August, 1994)

I never did any follow-up on using M.'s shirt for drawing or painting which could have been another activity. However, M. was so busy making his man-of-war it would have been difficult to use him.

I also think it would have been helpful when we were discussing the whales's baleen to show the children the resource pictures of both the whale and the shark. This way, the children could have seen the difference between the two animals.

Allowing and supporting M.'s decision to make a man-of-war was a step toward change. I no longer wanted to teach using patterns, and having all the children make the same thing.

Observation # 12 Free Choice
4-25-94

The children were at a table that had several books about sea creatures. Some began to draw using markers. I know they enjoy oil pastels and have used them many times before with good results. I asked if they would like to use the pastel to make their pictures. They all said yes. This medium always seems to spark their interest. Many children began and continued to draw throughout the morning. As they finished their drawings, I typed their words and then attached their words to their work.

Many of the drawings were matted on large construction paper, and hung on the wall.

Reggio Reflections on
Specific Behaviors

In this case, [I have intervened. I thought that using the oil pastels would provoke more learning on their part.] I felt that to draw a sea creature, the children would have to have some knowledge about it. They studied the pictures, and then began to draw. Provoking learning is part of the teacher's role in Reggio. 4

[I brought the typewriter into the room, and this behavior also provoked the children to draw.] They watched me as I typed their words. This was very special seeing their words being typed. This is another example of giving meaning to the children's work. 4

Before Reggio, I did not have the opportunity to use oil pastels with children in my class. I think the children enjoy using them because of the sensory stimulation. The pastels flow unlike crayons or markers.

Immediate Summative Reflections on Observation #12

1. I became excited as the children began to draw. Getting the typewriter and typing their words showed the children their words were important to me, and this gave meaning or importance to their work.

2. Matting their work, and hanging it up in a gallery style also showed the children that I valued their work.

3. I also feel that the children "feed" on my excitement. I try to be honest, and when they do a great job they know my excitement is real.

Later Summative Reflections (August, 1994)

I knew from previous experience, that the children enjoyed using the oil pastels. I assumed I would get a good response from the children and I did.

I typed their words, but should have asked more knowledge questions. This was something I had trouble with.

Observation #13 Circle Time
4-26-94

T: On this table, (pointing to one of the tables) I have made some books of paper. You might want to make your own fish or sea creature book today. Remember the book we read yesterday? It had a silly poem about fish. Can anyone remember the poem?

Several of the children try, and we work together to remember the poem.
T: It (the poem) sounds like a song I know.
Rac: It sounds like "Down by the bay."

We sing the song several times using different words.
Seal eating an eel
shark eating bark
starfish driving a carfish
The children are laughing as we try to rhyme sea creatures we know.

The children go to centers. Many want to finch oil pastel pictures from the day before, and some decide to make a fish book.

Reggio Reflections on Specific Behaviors

The children have learned about many sea creatures, and [I am trying to provoke them to demonstrate their knowledge by making a book.] 4

The song was spontaneous. The children took something they knew and built on it. I am trying to encourage these spontaneous ideas. [The children's song was their symbolic representation, just like drawing a picture.] (see entry #10 Piaget) 2

Before Reggio, I let children continue to work on activities from the previous day. However, now [I try to give the children even more time to work on activities, and in some cases suggest they add to the previous day's work.] Giving children time is very important in the Reggio philosophy.(Merrill-Palmer, 1993) 4

Immediate Summative Reflections on Observation #13

1. The song was great! I am getting more comfortable with the spontaneous happenings. This is learning. The children say what they want, laugh, and sometimes get silly.

2. Our group times are times of fun learning.

3. I enjoy myself when our class is more spontaneous, and more of what we do then comes from the children.

Later Summative Reflections (August, 1994)

I think I would have had a better response to the books (very few tried it) if I would have said they could have used our poem and then illustrated it; or suggested that they dictate their ideas to one of the teachers.

I also could have discussed the book idea in more detail or shown the children examples of books from the classroom or other children. However, doing all of this might have been considered intervention in the Reggio philosophy rather than provoking learning. The fine line between provoking and intervention was not always clear to me.

Observation #14 Circle Time
4-27-94

Aya and RO wore clothes to school with sea animals on them; Est. brought a toy shark, and Jac brought snail shells. All these things brought about a discussion of what we can eat from the ocean. We also identified all the sea creatures on their clothing.
T: What can we eat from the ocean?
Jac: Fish
Stev: Shark
Jus: Crab
Zac: Lobster
Steph: Fish
Est: Shark
M.: Octopus
Stev: Sushi
T: What is sushi?
Stev: It's fish that's not alive.
M: Turtle steak
T: Jac can you tell us where you got your snail shells?
Jac: My mom's friend gave them to me, she said that the sea gulls eat the snails and drop the shells in the water. (He passed them around the circle, looking proud that he knew this information.)
Anna: I went in a glass bottom boat in Florida.
T: What did you see?
Anna: You can see fish and bones. We went in another boat and you could see alligators.
T: What's the difference between alligators and crocodiles?
The children discuss their ideas, and decide we are not sure about the differences.
T: We'll have to check the books and find out the differences.

Reggio Reflections on Specific Behaviors

[I used all the materials the children provided me with to extend their interest and facilitate learning about the sea.]
Before Reggio, a child sometimes wore a shirt with a dinosaur when we were studying dinosaurs. However, now the children seem to show their interest in the subject or project on a much larger scale. I find that I do the same. I have purchased several dinosaur shirts, ocean creature shirts, and shirts with story or movie characters on them. 4

[I believe that identifying the sea creatures on Aya's and RO's clothing is another way the children can show me what they have learned about the ocean.] 1

[I wrote down all their ideas about what we eat from the sea.(documented)] The children were aware that I was writing their ideas, and this gave meaning to their ideas. Before Reggio this might have been a casual discussion, but here I was hoping to make a connection between sea and a possible food source. 4

Immediate Summative Reflections on Observation #14

1. Our class make-up includes several cultures including Japanese children. Each of these cultures has different ideas about fish as food. The children are familiar with sushi due to the Japanese children and some have tried it with their parents. Naming the different foods is also my way of including all the children in our discussion. It is something they are familiar with.

2. I feel this was a good circle time because many of the children showed interest in our subject matter. I want to try and involve all the children in some part of this study.

Later Summative Reflections (August, 1994)

van Manen(cited in Adler, 1990) states that research as reflection on experiences allows us to see again or to become more aware of that which we took for granted. I agree, I did not think of the new ideas until I re-read the journal reflections of what I did.
This is the same concept used with the children's ideas in Reggio. The teacher documents the children's words or ideas through tapes or photographs allowing the children to revisit their ideas.

As I re-think these entries now, I'm sorry I did not think about visiting a fish market or sea food restaurant as a field trip. Perhaps we could have even prepared a sea food snack.

We did try to visit an aquarium, but had a problem with bus transportation. I think next time we will at least try to visit a store which sells fish and aquarium supplies, and maybe purchase some gold fish for our classroom.

We should have followed up on crocodiles and alligators during our second group time or during free choice time. This might have provoked another project.

Observation #15 Free choice
4-28-94

Yesterday during rest time I read the class the book "Rainbow Fish". It has illustrations which use shiny foil. The children decided that they would like to make their own "rainbow fish".

The children were told they could make any type of fish they wanted. They asked for glitter to give the fish the shiny effect. A center was created with colored paper, several colors of glitter, and other materials.
The children were very active at this center, and worked throughout the morning. Many chose to make several fish. They drew the fish or sea creature, cut it out and generously used the glitter. Some children made one fish for our classroom and one to to take home.

Some of the children used the resource books to decide how to make their fish, while others used a method one of the children discovered. They found that if you started to make the number eight you could easily change it to a fish shape. They taught each other how to successfully make a fish!

Reggio Reflections on
Specific Behaviors

This is a delightful story about a fish who learns to share. I have used this book in the past and had a good response from the children. This is an example of how [the teacher can provoke the children to do a project or activity by using a book.] 4

When I used the book before the children used a pattern to make one type of fish. [This time, the children needed very little direction, they knew what they wanted to do, and demonstrated their knowledge by creating all types of sea creatures.] This shows a shift on the children's part. [As a result of their behavior, I believe in the Reggio image of the child.] This demonstrates a shift in my thinking. / /

Without a pattern or pre-cut shape, the children had to problem solve to make a fish shape. Before Reggio, I showed or told the children how to do something such as make a fish. Now, the children are doing more of the problem solving. This shows me what [I believe that the children can construct knowledge.] /

Immediate Summative Reflections on Observation #15

1. Like pastels, certain mediums really provoke the children to try an activity. Glitter is one of these mediums. The children enjoyed the story, and adding the glitter to the activity made it very successful.

2. I get excited when the children enjoy an activity. When they asked if they can make more than one of a project I know they are excited. It also demonstrates to me that when they are comfortable doing something, they will do more of it. Reggio gives the children and the teacher the time to experience this. The children can continue to do something until they feel they are finished.

Later Summative Reflections (August, 1994)

We used the glittered rainbow fish and sea creatures to make a mural, but we could have made individual rainbow fish books or stories about the rainbow fish.

The children did not use another medium such as paint or markers to represent the story, perhaps this could have been suggested or provoked.

I still laugh when I think about the children collaborating to make the fish shape. I think it is because it is a simple example of children constructing knowledge.

Observation #16 Circle Time
5-5-94

I brought in home made fishing poles with magnet ends.

T: What are these things?
Rac: Fishing poles.
T: What could you do with them?
Jus: Fish for paper fish.
M.: You have to have metal.
Hani: Put a clip on it. Some of the clips hang off the fish.
T: What will happen?
Hani: The fish will come on the pole.
Lace: 'Cause it's a magnet.
T: What could we make the fish out of?
Anna: We could make them out of clay.
T: Any other ideas?
Jac: A clay fish would be good we could hide the magnet in the clay.
Rac: The clay would break.
Bra: Playdough?
Hani: Paper
Jus: Paper with plastic (laminate)
M: Foil
Rac: Paper with plastic so it won't rip with clips.
M.: A refrigerator magnet won't stick.
T: What's another word for stick?
No response.
T: We say that magnets attract.
Jac: Aluminum will not stick to magnets.

During free choice the children had the opportunity to use the fishing poles with fish they made. Many materials were available to use for fish making. As well as different types of clips.

Another center included larger magnets and all types of

Reggio Reflections on Specific Behaviors

Reggio states that the teacher must sometime set up problems for the children to solve. (Edwards, 1993) [I brought in the magnets to set up a problem and provoke a learning situation.] 4
I have used the magnet fishing poles before Reggio, but I have given the information to the children regarding the magnets. I am trying to let them do the problem solving regarding the magnets, and what will attract.

[I am documenting all their ideas with the hope they will experiment with their ideas after circle time.] 4

Some of the children have had prior experience with magnets and know that some metal is needed.

Observation #16 (cont.)

"junk" to experiment with.
Stev: Look the magnet sticks to the chair part, and look at the pencils.

Group Time

T: I noticed many of you made fish and used the fishing poles. No one made a foil fish, how come?
Chr: The marker spreads on the foil, and comes off.
Rac: The crayon won't show up.
T: Could you cut a fish out of foil?
Class: Yes.
T: Will the magnet attract the foil?
Varied response.
T: Let's vote. How many think the magnet will attract the foil? 5 yes 12 no
T: I think it will attract. We do the test, the magnet does not attract the foil.
Rac: We could put a clip on the foil.
We try a paper clip and it works
T: Will a paper fastener work?
Class: Try it.
We test the paper fastener(brad) and it works.
T: When you were at the magnet center what things did the magnet attract?
Stev Key chain
Jac: Foot of the chair (metal)
Yuya: Tin can
Stev: Ball with bell in it
Chr: A nail
T: Can we say anything about magnets? What did you learn?
Jac: Some metals are attracted by magnets, but not all.

Reggio Reflections (cont.)

[Stev was using all the "junk" to create his own magnet art.] Another case for the 100 languages of Reggio. 2

As in the earlier entry [I set up the problem and hope the children would solve it.] The children had greater success using a paper fish with a paper clip or a brad. The foil proved difficult to work with, so they chose not to use it. 4

[I am trying to get the children to think through the process of making a fish and testing whether it will work. This is my way of provoking knowledge.] 4

[I questioned all the children, to involve them and try to get them to form an opinion.] Asking the children to vote sometimes helps me do this. 4

[I'm trying to problem solve with the children. Some of the children can do this, while others need to be provoked to do this on their own.] *4 2

Immediate Summative Reflections on Observation #16

1. I made an effort to set up a problem with all the things in the magnet center.

2. Whenever Stev experienced success with the magnet attracting something he was so excited. I've never seen him look like this. He was genuinely learning and testing materials. He even had pencils with metal tops hanging off the magnets. This is an example of a constructivist physical knowledge activity. It contains all the criteria: "the child must be able to produce the phenomenon by his own action, the child must be able to vary the his action, the reaction of the object must be observable, and the reaction of the object must be immediate."(DeVries & Kohlberg 1987, p. 92-93)

3. Stev's learning by testing is how I'd like more of our days to go. These kinds of situations do not occur often enough.

4. I am observing, I enjoy watching these moments of learning.

Later Summative Reflections (August, 1994)

Having success with the magnets, I am sorry that I have not set up more problems for the children to explore. I know this is a large part of Reggio, and one that I will have to concentrate on in the future.

The children had the opportunity to use the fishing poles with magnets, and the magnet and "junk" center. Maybe I could have made something with magnets, although no ideas related to this came up from the children other than Jac's idea of the clay fish with magnets.

I am sorry I did not document Stev's magnet art with a photograph, this could have been another example of the 100 languages of Reggio.

Observation #17 Circle Time
5-6-94

Today at circle time the children are planning what they want to do for our celebration at the end of the ocean unit.
T: What kinds of things would you like to do at our celebration?
Rac: Play hide the fish.
Hani: Wear shorts.
T: How would you like to eat lunch on your towels, like at the beach?
Class: Yeah!
Bri: Wear swim suits.
Bra: Play pin the face on the fish.
Chr: Have music.
Jac: Play pin the tentacles on the anemone.
Chr: Play beach ball.
Bri: Have dancing.
Jus: Have a dance contest.
Est: A rock and roll party.
T: We have many ideas which I have written down. I want you to think today, and we'll see if you have any other ideas.

We spent the rest of the morning working on Mother's day gifts. The celebration plans were put on hold.

Reggio Reflections on Specific Behaviors

[Listing the children's ideas is my way of acting as the children's memory.](New, 1991) 4

Before Reggio, each week might be a different subject matter with no real ending other than the changing week. Now, with Reggio, I try to have an ending or closing celebration to end the study. I do this when it seems the children are ready, and their interests seems to be waning in the subject matter. [We then collaborate and plan the celebration or party.] 2

They have finished their murals, and other ocean projects.

Immediate Summative Reflections on Observation #17

1. This planning did not go as well as I had hoped. The children did not seem to have any specific ideas, or maybe it's a case of I do not like their ideas.

2. When we planned our last ending party the children decided to make games and this stretched the unit out at least another week or so. This time I think they are more concerned with mother's day gifts and want to just end the unit.

Later Summative Reflections (August, 1994)

The party turned out very well, even though it did not have a lot of planning. Maybe it would have been better to end the study of sea creatures early and then do the mother's day projects. Doing both at the same time, the children had to divide their interest; and this was difficult for them to do.

Observation #18 Free Choice
5-6-94

Bra. had not done a pastel drawing last week, and asked to make one. This provoked many more of the children to make another pastel picture.

Bra. looked through the resource books, and then drew a whale in the ocean.

Est., a student who joined us in January had difficulty drawing when he first arrived. He is very interested in sharks. He has found all the shark pictures in our resource books and continues to draw pictures of sharks on paper, paint pictures of sharks, as well as drawing sharks on the blackboard.

Reggio Reflections on
Specific Behaviors

The children have no problem making a decision about what they want to do. [I believe this is because of the Reggio approach.] They have learned that not only will I let them do a different activity, but encourage them to do so. Before Reggio, I might have said, "We did that last week, this is what we are doing today." 1

[I believe Bra. demonstrates the strong image of the Reggio child. He knows what he wants to do and does it.] 1

I have learned from my experience with Reggio that [the children will continue to symbolically represent something through drawing or another medium once they experience success. This was why Est. continued to draw sharks.] Reggio gives them the different mediums to experiment with. 2

Immediate Summative Reflections on Observation #18

1. The children continue to enjoy using the pastels to draw, and I continue to get excited by their drawings. Some of the children are even working in groups to create a story with their pictures.

2. I think a large part of the Reggio success with projects or individual art goes back to the teacher. The children enjoy what they are doing (drawing), because it is something they are interested in; and the teacher gets excited by their results.

3. Est. practiced his sharks, and I encouraged him to do so. When he felt successful with markers, he then went on to other mediums. The teacher needs to be both a good listener and observer as Reggio states.(Edwards, 1993)

Later Summative Reflections (August, 1994)

I did not question the children enough about their work. I need to learn to question the children to see what their understanding is, while not creating a situation where they will not want to draw because they will always be questioned.

Forman(1990) suggests choosing an aspect of the picture and asking the child to tell more about it. He states when done with skill, it will deep the child interested in their own understanding.

Observation #19 Free choice
5-10-94

We had a visit from the head teacher. (She usually comes weekly.) She showed the class snakes made of fabric by another class. She told the children if they choose to do sewing she would help.

The children were interested, stating they wanted to make fabric fish or sea creatures.

The children were supplied with fabric, markers, paper, scissors, and crayons. I suggested they draw their creature and plan how they wanted it to look. Many used the figure eight method of drawing a fish on the paper. They then cut out the paper fish and used these for a pattern. They traced the pattern on the fabric of their choice, and cut out the shape. The children used markers to decorate the fabric.

The next two days were spent cutting out fish, stuffing them with cotton filler, and sewing them. I brought in my sewing machine, and the children watched me as I sewed the creatures. I sewed the creatures half way, the children stuffed them, and then I did the final sewing. (Since I have a sewing machine and sew, I did not need the help of the head teacher.) The children decided they wanted the fish displayed for the family celebration in a fish net. I was able to get a net and all the fish were displayed for the parents.

Reggio Reflections on
Specific Behaviors

Our head teacher's job was to act as an consultant similar to the "pedagogista" in Reggio Emilia. The "pedagogista" in Italy works with the teachers helping them with themes as well as participating in providing in-service training. (Fillipini, 1993)
[The head teacher provoked the idea of fabric fish and the children made the decision to make the fish.] 4
I did intervene when I suggested the children plan their creatures by drawing them, [however I was trying to provoke the idea of planning a project before beginning.] 4

The Reggio philosophy wants the children to have a strong image and be independent, but there is still room for collaboration. [My sewing the fish was my part of collaborating to complete a project.] 2

[Using the sewing machine was much like the typewriter in entry #10. [The children could watch me working on their creations and this provoked] more [children to participate and create a fabric sea creature.] 4 I also think the children were aware of my interest and enjoyment in what we were doing. I complemented them on their projects and showed the class each finished project. 2

The family celebration is a party held at the end of the school year for the whole family to come and view all the children's work.

Immediate Summative Reflections on Observation #19

1. The head teacher provoked the idea of making fabric fish and the children took this idea and carried it out. They needed very little help once they had the materials. They experimented with different fabric and decorating with markers.

2. I did not show the children how to draw a fish, they learned from each other. Before I would have done a sample for them to see, or I would have provided patterns for them to use. I did help them when they asked for it.

3. I did do the sewing on the sewing machine rather than let the children sew by hand. This I would like to think of as collaboration rather than intervention. Earlier experiences with sewing puppets and bean bags have left the children frustrated and they did not seem to enjoy the activity. I wanted them to experience success with this project and they did.

Later Summative Reflections (August, 1994)

I could have made no suggestions regarding how the fish were to be made. However, I knew we had limited fabric and without planning on the children's part I assumed much fabric would be wasted before the children realized how to make the fish.

I could have given the children the opportunity to sew their own fish. I admit I wanted the children to have success with the activity.

Observation #20 Free Choice
5-19-94 Sea Party

It was decided by the children and teachers that our "sea party" would include lunch by our own sea (a blanket) and sea related games and activities.

During free choice, a blanket became our sea and the children could decide what they wished to do. The art center was open with many materials to use as they wanted to.
The blanket became a spontaneous ocean with swimmers, divers, and surfers. The children used blocks to create a dock and diving board. The long blocks were used for surf boards and many sang the Beach Boys surfing song as they surfed!!
The children made a whale calling machine and used paper cones from the art center for "oil sucking machines". A brown blanket became an oil spill. (We had discussed what an oil spill was and used oil and water in a jar to demonstrate.)

M: Let's pretend this is the dock. We can jump off here, get in line behind me.
Stef: I'm the life guard.
A group of children save a drowning swimmer.

Many children made hats to wear at the art center and returned to the sea to play. Someone decided they needed flags to alert the swimmers of sharks, so they returned to the art center to make flags. They used paper rollers and colored paper for flags.

Reggio Reflections on
Specific Behaviors

The children had the opportunity to decide what they wanted for the party, (earlier entry) Before Reggio I would have done most of the planning.

Before Reggio, I was not as open to the children moving back and forth from center to center. [I believe there is a lot more freedom in the room now.] [The children created their props at the art center and then took them to the block area.] 1 2

With Reggio, [I believe the children are much more spontaneous.] They know they can be because it is encouraged. [I sang with the children as they surfed, this was my way of encouraging the play. I also took part in the play.] 1 *4 2

[I believe that the children's dramatic play reflected what we had discussed in class. An example of Reggio's strong independent learner.] 1
[The children collaborated to continue the play.] [Their dramatic play included swimmers and life guards as well as surfers all working to continue the play.] 2 2

[I have facilitated learning by making the materials more available to the children to use in both the art center, and where I store it.] I have told them they may use the materials when they choose to. 4

Observation #20 (cont.)

Free choice ended and with a game and all the children received ocean creature stickers. Most could identify the creatures on the stickers.

We then ate lunch on the edge of our sea, eating goldfish crackers, and sticking our feet in the pretend sea!

Reggio Reflections (cont.)

Identifying the sea creatures is an example of Piaget's assimilation and accommodation.

[The children's dramatic play, eating lunch by the ocean and sticking our feet in it;] is an example of Reggio's 100 languages of children.

Immediate Summative Reflections of Observation #20

1. The spontaneity of the play pleased me greatly. The children decided what they wanted to do, and did it. I did not intervene except to play with them, or to supply a needed prop. This showed me how well the children could collaborate as well as co-operate.

2. It also showed me how the children can demonstrate what they have learned through their dramatic play. (The oil spill, and the shark alert had been discussed in class.) This is an example of Reggio's 100 languages of children.

3. Changing the classroom's environment by making changes in where the materials are stored has benefited the children. (De Vries, 1988) They can see what there is and use it when they want to. I sometimes give limits on special resources such as colored foil paper, but for the most part the children can use what they choose.

Later Summative Reflections (August, 1994)

I could have suggested that the sea party be a more planned celebration as was the case for our dinosaur party. However, the spontaneous nature of the sea party seemed to make it a success. I was a risk taker and this is a very important part of being a teacher in the Reggio approach.

Appendix D

Frequency of Idea Units in Journal Entries

	Belief	Practices		
Journal Entry	Image of Children	Children's Participation	Teacher's Role	Parent's Participation
1.	1	1	3	0
2.	2		2	0
3.	3	1	4	0
4.	2	2	6	0
5.		1	1	0
6.	1			0
7.	3	1	3	0
8.	2	2	1	0
9.		1	2	0
10.	1	3	8	0
11.	2		3	0
12.			2	0
13.		1	2	0
14.	1		2	0
15.	3		1	0
16.		1	6	0
17.		1	1	0
18.	2	1		0
19.		2	3	0
20.	3	4	2	0
Totals	26	23	51	o